7	Application No.	Applicant(s)
Notice of Allowability	09/868,667	LANNERT ET AL.
	Examiner	Art Unit
	Wilbert L. Starks, Jr.	2129
The MAILING DATE of this communication appearable communication appearable claims being allowable, PROSECUTION ON THE MERITS IS (wherewith (or previously mailed), a Notice of Allowance (PTOL-85) of NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RICE of the Office or upon petition by the applicant. See 37 CFR 1.313	OR REMAINS) CLOSED in this ap or other appropriate communication GHTS. This application is subject t	plication. If not included not will be mailed in due course. THIS
1. This communication is responsive to <u>Amendment filed 07/11</u>	<u>2/2005</u> .	
2. ⊠ The allowed claim(s) is/are <u>1-19</u> .		
a)  Acknowledgment is made of a claim for foreign priority und a)  All b)  Some* c)  None of the:  1.  Certified copies of the priority documents have  2.  Certified copies of the priority documents have  3.  Copies of the certified copies of the priority documents have  3.  Copies of the certified copies of the priority doc  International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  Applicant has THREE MONTHS FROM THE "MAILING DATE" of noted below. Failure to timely comply will result in ABANDONMITHIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  4.  A SUBSTITUTE OATH OR DECLARATION must be submit  INFORMAL PATENT APPLICATION (PTO-152) which gives  5.  CORRECTED DRAWINGS (as "replacement sheets") must  (a)  including changes required by the Notice of Draftsperson  1)  hereto or 2)  to Paper No./Mail Date  (b)  including changes required by the attached Examiner's  Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR 1.9 each sheet. Replacement sheet(s) should be labeled as such in the  centre of the priority documents  1 to  1 to	been received. been received in Application No uments have been received in this of this communication to file a reply ENT of this application.  Ited. Note the attached EXAMINER is reason(s) why the oath or declara is be submitted. On's Patent Drawing Review ( PTO Amendment / Comment or in the ( B4(c)) should be written on the drawing header according to 37 CFR 1.121.	national stage application from the complying with the requirements  R'S AMENDMENT or NOTICE OF ation is deficient.  -948) attached  Office action of ings in the front (not the back) of (d).  must be submitted. Note the
Attachment(s)  1. ☐ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/06 Paper No./Mail Date  4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ☐ Interview Summary Paper No./Mail Da 8), 7. ☐ Examiner's Amend	ate

Application/Control Number: 09/868,667

Art Unit: 2129

## **DETAILED ACTION**

## Reasons For Allowance

- 1. Claims 1-19 are allowed.
- 2. The following is an Examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fails to teach the claimed invention of a training system, as claimed by Applicant. Specifically, independent claims 1, 10, and 19 disclose a training system that adapts itself to user "characteristics." In the Specification, Applicant specifically defines user "characteristics" as:

A profile is composed of two types of structures: characteristics and collective characteristics. A **characteristic** is a conditional (the if half of a rule) that identifies a subset of the domain that is important for determining what feedback to deliver to the student. Example characteristics include: Wrong debit account in transaction 1; Perfect cost classification; At Least 1 DUI in the last 3 years; More than \$4000 in claims in the last 2 years; and More than two at-fault accidents in 5 years A characteristic's conditional uses one or more atomics as the operands to identify the subset of the domain that defines the characteristic. An **atomic** only makes reference to a single property of a single entity in the domain; thus the term atomic.

Example atomics include: The number of DUI's >= 1; ROI > 10%; and Income between \$75,000 and \$110,000. A **collective** characteristic is a conditional that uses multiple characteristics and/or other collective characteristics as its operands. Collective characteristics allow instructional designers to build richer expressions (i.e., ask more complex questions). Example collective characteristics include: Bad Household driving record; Good Credit Rating; Marginal Credit Rating; Problems with Cash for Expense transactions; and Problems with Sources and uses of cash. Once created, designers are able to reuse these elements within multiple expressions, which significantly eases the burden of creating additional profiles. When building a profile from its elements, atomics can be used by multiple characteristics, characteristics can be used by multiple collective characteristics and

Application/Control Number: 09/868,667

Art Unit: 2129

profiles, and collective characteristics can be used by multiple collective characteristics and profiles. See, Applicant's Specification, pg. 9, last paragraph and pg. 10, first paragraph.

The closest prior art of Goodovsky (U.S. Patent Number 6,807,535 B2; dated 19 OCT 2004; class 706; subclass 003) teaches a training system but fails to teach or suggest the "user characteristics" as defined in Applicant's Specification. To the extent that this feature is not present in the prior art cited by Examiner, the present case is allowed.

Regarding the 101 issues in the case, Examiner will now seek to clarify the record regarding the issued, arguments, and decisions in this case.

The first issue: Artificial Neural Networks (ANNs) are not statutory unless trained with real-world data. This raises an interesting quandary: Why would Biological Neural Networks (BNNs) be statutory if the subject of training is not specified?

## Well, 2 reasons:

- 1. ANNs are not necessarily "hardware" and could be computer programs per se or algorithms. BNNs, at least at this point in technology, are necessarily "hardware" systems...the BNN, in this application, is a "substance" that is transformed outside of the computer by "training" (i.e., a transformation of physiological brain states.)
- 2. ANNs can be installed in virtually anything. Therefore, the final invention remains unknown until more details about the practical application are known. The BNNs in Applicant's invention reside exclusively in humans. Therefore, an invention regarding the training of a human is one invention

Application/Control Number: 09/868,667

Art Unit: 2129

and the process remains the same regardless of the human and regardless of the subject. It, therefore, satisfies the policy and doctrine behind 101.

On these bases, Examiner finds that the present invention satisfies 101.

Examiner commends Applicant's arguments in this case and thanks Applicant for his patience in resolving these issues.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (571) 272-3691.

Alternatively, inquiries may be directed to the following:

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WLS

<del>10 July 2004</del> 31 Aug 2005 Wilbert L. Starks, Jr.

Wilbert L. Starks, Jr.

Primary Examiner

Primary Examiner

Art Unit 2121